



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/579,348

05/12/2006

Young-Iak Kim

126587-0029

2146

22429

7590

12/30/2008

LOWE HAUPTMAN HAM & BERNER, LLP
1700 DIAGONAL ROAD
SUITE 300
ALEXANDRIA, VA 22314

EXAMINER

WANG-HURST, KATHY W

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

12/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,348	Applicant(s) KIM ET AL.	
	Examiner KATHY WANG-HURST	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-9, 11-14, 17-19, 21-26, 29-31, 33-36, 39-43, 45, 47, 50 and 51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4, 7-9, 11-14, 17-19, 21-26, 29-31, 33-36, 39-43, 45, 47 and 50-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on 10/29/2008 has been entered. Claims 5-6, 10, 15-16, 20, 27-28, 32, 37-38, 44, 46 and 48-49 have been cancelled. Claims 1, 11, 21, 33, 39 and 45 are amended. Claims 1-4, 7-9, 11-14, 17-19, 21-26, 29-31, 33-36, 39-43, 45, 47 and 50-51 are still pending in this application.

Response to Arguments

2. Applicant's arguments with respect to claims 1-4, 7-9, 11-14, 17-19, 21-26, 29-31, 33-36, 39-43, 45, 47 and 50-51 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (US 2003/0024791) in view of Akhteruzzaman et al. (US 2004/0203707).

Regarding claim 1, Choi discloses a method of performing a handover from a WCDMA network to a CDMA network (see Abstract and [0052]-[0054]), the method comprising the steps of: (a) receiving a WCDMA signal level measurement message at

Art Unit: 2617

a multimode terminal ([0052][0011]), turning on a CDMA modem mounted on the multimode terminal ([0050][0051]) and transmitting a level value of a dummy pilot signal to a WCDMA system ([0052]), upon detecting the dummy pilot signal above a prescribed level out of the WCDMA signal level measurement message ([0052]); (b) determining whether to perform a handover or not based on the level value of the dummy pilot signal received from the multimode terminal ([0052]-[0055]); (c) transmitting a handover request message from the WCDMA system to a CDMA system when it is determined to perform the handover([0052]-[0055]); (d) transmitting a handover command message from the WCDMA system to the multimode terminal([0052]-[0055]); and (e) allowing traffic to be switched to the CDMA modem of the multimode terminal ([0052]-[0055]); wherein the dummy pilot signal is transmitted from the CDMA system located in a border area between the WCDMA network and the CDMA-2000 network([0052]-[0055]); wherein the dummy pilot signal includes a specific scramble code([0056]); and wherein, at step (d), when the multimode terminal receives the handover command message, the CDMA modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off ([0054]-[0055]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as

Art Unit: 2617

taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 11, Choi discloses a method of performing a handover from a WCDMA network to a CDMA-2000 network by means of a WCDMA system for determining whether to perform the handover or not, a CDMA system for transmitting a dummy pilot signal, and a multimode terminal including a WCDMA modem and a CDMA modem(see Abstract and [0052]-[0054] handoff from WCDMA to CDMA network based on the pilot signal received), the method comprising the steps of: (a) receiving a WCDMA signal level measurement message at a multimode terminal ([0052][0011]); (b) detecting the dummy pilot signal from the WCDMA signal level measurement message and comparing a level value of the dummy pilot signal with a predetermined threshold value([0052]-[0055]); (c) turning on a CDMA-2000 modem and transmitting the level value of the dummy pilot signal to the WCDMA system([0052]-[0055]), when the level value of the dummy pilot signal is larger than the predetermined threshold value([0052]-[0055]); (d) determining whether to perform the handover or not based on the level value of the dummy pilot signal at the WCDMA system([0052]-[0055]); (e) transmitting a handover request message to the CDMA-2000 system when it is determined to perform the handover at the WCDMA system([0052]-[0055]); (f) transmitting a handover command message from the WCDMA system to the multimode terminal([0052]-[0055]); and (g) allowing traffic to be switched to the CDMA modem of the multimode terminal wherein the dummy pilot signal is transmitted from the CDMA system located in a

Art Unit: 2617

border area between the WCDMA network and the CDMA network([0051]-[0055]); wherein the dummy pilot signal includes a specific scramble code ([0056]); and wherein, in step f), when the multimode terminal receives the handover command message, the CDMA-2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off ([0054]-[0055]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 21, Choi discloses a system for performing a handover from a WCDMA network to a CDMA network by means of a dummy pilot signal(see Abstract and [0052]-[0054]), the system comprising: a multimode terminal for receiving a WCDMA signal level measurement message ([0052]), turning on a CDMA-2000 modem embedded in the multimode terminal and transmitting a level value of the dummy pilot signal([0052]-[0055]), when detecting the dummy pilot signal above a prescribed level out of the WCDMA signal level measurement message([0052]-[0055]); a WCDMA system for receiving the level value of the dummy pilot signal from the

Art Unit: 2617

multimode terminal([0052]-[0055]), determining whether to perform the handover([0052]-[0055]), and transmitting a handover request message or a handover command message([0052]-[0055]); and a CDMA-2000 system for transmitting the dummy pilot signal to the multimode terminal wherein the dummy pilot signal is transmitted from the CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network([0052]-[0055]), wherein the dummy pilot signal includes a specific scramble code([0056]); and wherein, when the multimode terminal receives the handover command message([0052]-[0055]), the CDMA-2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off([0054]-[0055]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 33, Choi discloses a WCDMA system for performing a handover from a WCDMA network to a CDMA network by means of a dummy pilot signal, the WCDMA system comprising: a radio transceiver subsystem (RTS) for receiving a level

Art Unit: 2617

value of the dummy pilot signal from a multimode terminal and transmitting the received level value of the dummy pilot signal ([0052]); and a radio network controller for receiving the level value of the dummy pilot signal from the radio transceiver subsystem ([0052]), determining whether to perform the handover for the multimode terminal([0052]-[0055]), and transmitting a handover request message or a handover command message([0052]-[0055]); wherein the dummy pilot signal includes a specific scramble code([0056]); and wherein, when the multimode terminal receives the handover command message([0052]-[0055]), a CDMA modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off([0054]-[0055]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 39, Choi discloses a CDMA system for performing a handover from a WCDMA network to a CDMA network by means of a dummy pilot signal(see Abstract and [0052]-[0054]), the CDMA system comprising: a base transceiver station

Art Unit: 2617

(BTS) for transmitting the dummy pilot signal, which is a WCDMA pilot signal including a specific scramble code assigned in advance, to the multimode terminal ([0034]); and a base station controller (BSC) for receiving a handover request message from a WCDMA system([0008][0034]); wherein, when the multimode terminal receives a handover command message, a CDMA modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off([0054]-[0055]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 45, Choi discloses a multimode terminal capable of using both synchronous CDMA-2000 service and asynchronous WCDMA service and using at least two frequency bands([0011]), the multimode terminal comprising: an RF antenna for transmitting/receiving CDMA signals and/or WCDMA signals (Fig. 3); an RF transmission/reception unit for receiving and demodulating a dummy pilot signal sent from the RF antenna(Fig. 3 and [0052]), and outputting a demodulated dummy pilot signal ([0052]); a pilot signal measurement unit for measuring intensity of the

Art Unit: 2617

demodulated dummy pilot signal ([0052]); a WCDMA modem and a CDMA modem for processing a digital signal received from the RF transmission/reception unit and performing a call processing according to protocols respectively defined in a WCDMA standard and a CDMA standard([0052]-[0055]); a flash memory for storing an inter-modem switching program for performing a switching between the WCDMA modem and the CDMA modem according to a command from a WCDMA system; and a controller for turning on the CDMA modem and controlling a level value of the dummy pilot signal to be transmitted to the WCDMA system, when the dummy pilot signal above a specific level is detected ([0051]); wherein, when the multimode terminal receives a handover command message from the WCDMA system, the controller loads the inter-modem switching program, controls the CDMA modem to be turned on, and controls the WCDMA modem to be turned off([0054]-[0055]); wherein the dummy pilot signal is transmitted from a CDMA system located in a border area of a WCDMA network and a CDMA network([0052]-[0055]); and wherein the dummy pilot signal includes a specific scramble code assigned in advance([0056]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all

Art Unit: 2617

locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claims 2 and 22, combination of Choi and Akhteruzzaman teaches the method as claimed in claim 1, wherein step (c) includes the steps of: (c1) transmitting the handover request message from the WCDMA system to a protocol converter when it is determined to perform the handover; (c2) performing a protocol conversion for the handover request message at the protocol converter; and (c3) transmitting the protocol-converted handover request message from the protocol converter to the CDMA-2000 system.

Regarding claims 3, 25 and 36, Choi discloses the method as claimed in claim 1, wherein the WCDMA signal level measurement message includes information on peripheral base stations which should be searched by the multimode terminal and information on the dummy pilot signal ([0052]).

Regarding claims 4 and 26, Choi discloses the method as claimed in claim 1, wherein the dummy pilot signal includes a WCDMA pilot signal ([0052]).

Regarding claim 7 and 50, Choi discloses the method as claimed in claim 1, wherein the WCDMA system includes: a radio transceiver subsystem (RTS) for receiving the level value of the dummy pilot signal from the multimode terminal and transmitting the level value of the dummy pilot signal ([0052]); and a radio network controller for receiving the level value of the dummy pilot signal from the radio transceiver subsystem ([0052]), determining whether to perform the handover for the multimode terminal([0052]-[0055]),

Art Unit: 2617

and transmitting the handover request message or the handover command message([0052]-[0055]).

Regarding claims 8 and 18, Choi discloses the method as claimed in claim 1, wherein the CDMA system includes: a base transceiver station (BTS) for transmitting the dummy pilot signal to the multimode terminal ([0052]); and a base station controller (BSC) for receiving the handover request message from the WCDMA system ([0051]).

Regarding claims 9 and 19, Choi discloses the method as claimed in claim 1, wherein, at step (a), the multimode terminal periodically searches a common pilot channel (CPICH) and receives the WCDMA signal level measurement message ([0052]).

Regarding claim 12, combination of Choi and Akhteruzzaman teaches the method as claimed in claim 11, wherein step (e) includes the steps of: (e1) transmitting the handover request message to a protocol converter when it is determined to perform the handover at the WCDMA system; (e2) performing a protocol conversion for the handover request message at the protocol converter; and (e3) transmitting the protocol-converted handover request message to the CDMA-2000 system at the protocol converter.

Regarding claim 13, Choi discloses the method as claimed in claim 11, wherein the WCDMA signal level measurement message includes information on peripheral base stations which should be searched by the multimode terminal and information on the dummy pilot signal ([0052]).

Regarding claim 14, Choi discloses the method as claimed in claim 11, wherein the dummy pilot signal includes a WCDMA pilot signal ([0052]).

Regarding claims 23, 34 and 40, combination of Choi and Akhteruzzaman teaches the system as claimed in claim 21, wherein the multimode terminal is capable of using both synchronous CDMA-2000 service and an asynchronous WCDMA service and uses at least two frequency bands.

Regarding claims 24, 35 and 41, Choi discloses the system as claimed in claim 21, wherein, when the multimode terminal receives the handover command message, traffic is switched to the CDMA modem of the multimode terminal([0054]-[0055]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 29, Choi discloses the system as claimed in claim 21, wherein the WCDMA system includes: a radio transceiver subsystem (RTS) for receiving the level value of the dummy pilot signal from the multimode terminal and transmitting the received level value of the dummy pilot signal ([0052][0011]); and a radio network

controller for receiving the level value of the dummy pilot signal from the radio transceiver subsystem, determining whether to perform the handover for the multimode terminal, and transmitting the handover request message or the handover command message ([0051] and Fig. 3).

Regarding claim 30, Choi discloses the system as claimed in claim 21, wherein the CDMA system includes: a base transceiver station (BTS) for transmitting the dummy pilot signal to the multimode terminal ([0008][0034]); and a base station controller (BSC) for receiving the handover request message from the WCDMA system([0008]).

Regarding claim 31, Choi discloses the system as claimed in claim 21, wherein the multimode terminal periodically searches a common pilot channel (CPICH) and receives the WCDMA signal level measurement message ([0052]).

Regarding claim 42, Choi discloses the CDMA system as claimed in claim 39, wherein, when traffic is switched to a CDMA modem, the multimode terminal turns off a WCDMA modem mounted on an inside of the multimode terminal ([0054]-[0055]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all

Art Unit: 2617

locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 43, Choi discloses the CDMA system as claimed in claim 39, wherein the multimode terminal periodically searches a common pilot channel (CPICH) and receives the dummy pilot signal ([0052]).

Choi disclose a handover between a WCDMA and a CDMA network but fails to disclose a handover between a WCDMA and a CDMA-2000 network. Akhteruzzaman teaches a handover between a WCDMA and a CDMA network ([0007]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Choi, to incorporate CDMA-2000 as one of the many different systems that the mobile unit supports, as taught by Akhteruzzaman, thus allowing a subscriber to be able to communicate in all locations for uninterrupted wireless communications services regardless the type of network the mobile unit is in (Abstract and [0007]).

Regarding claim 47, Choi discloses the multimode terminal as claimed in claim 45, wherein the dummy pilot signal includes a WCDMA pilot signal ([0052]).

Regarding claim 51, combination of Choi and Akhteruzzaman teaches the multimode terminal as claimed in claim 45, wherein the multimode terminal periodically searches a common pilot channel (CPICH) and receives the CDMA-2000 signals and/or the WCDMA signals ([0052]).

Conclusion

Art Unit: 2617

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is (571) 270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATHY WANG-HURST/
Examiner, Art Unit 2617